

Construction Trades Foundation

Levels: Grades 10-12
Units of Credit: 1.0 credit
CIP Code: 46.0000
Prerequisite: None

CORE STANDARDS, OBJECTIVES, AND INDICATORS

STANDARD **The student will learn and practice basic safety skills.**
460000-01

OBJECTIVES

- 460000-0101 Describe how to avoid job-site accidents.
- 460000-0102 Explain the relationship between housekeeping and safety.
- 460000-0103 Appreciate the importance of following all safety rules and company safety policies.
- 460000-0104 Explain the importance of reporting all on-the-job injuries, accidents, and near misses.
- 460000-0105 Explain the need for evacuation procedures and the importance of following them.
- 460000-0106 Explain their employer's substance abuse policy and how it relates to their safety.
- 460000-0107 Use proper safety practices when welding or working around welding operations.
- 460000-0108 Use proper safety practices when working in or near trenches and excavations.
- 460000-0109 Explain the term Proximity Work.
- 460000-0110 Follow safe practices when working near pressurized or high-temperature systems.
- 460000-0111 Know and follow the safety requirements for working in confined spaces.
- 460000-0112 Explain and practice safe lockout/tagout procedures.
- 460000-0113 Know the different types of barriers and barricades, and where they should be used.
- 460000-0114 Recognize and explain personal protective equipment uses.
- 460000-0115 Inspect and care for various types of personal protective equipment.
- 460000-0116 Follow safe procedures for lifting heavy objects.
- 460000-0117 Inspect and safely work with various types of ladders and scaffolds.
- 460000-0118 Demonstrate an understanding of the OSHA Hazard Communication Standard.
- 460000-0119 Explain the function of Material Safety Data Sheets.
- 460000-0120 Explain the process by which fires start.
- 460000-0121 Practice fire prevention in dealing with various flammable materials.
- 460000-0122 Explain the classes of fires, and the type(s) of extinguishers to use for each.
- 460000-0123 Explain why injuries result when electrical contact occurs.

- 460000-0124 Practice safe work procedures around electrical hazards.
460000-0125 Take action if present when an electrical shock occurs.

STANDARD **The student will understand and demonstrate basic math skills.**
460000-02

OBJECTIVES

- 460000-0201 Add, subtract, multiply, and divide whole numbers, with and without a calculator.
460000-0202 Use a standard and metric ruler to measure.
460000-0203 Add, subtract, multiply, and divide fractions.
460000-0204 Add, subtract, multiply, and divide decimals, with and without a calculator.
460000-0205 Convert decimals to percents and percents to decimals.
460000-0206 Convert fractions to decimals and decimals to fractions.
460000-0207 Explain what the Metric System is and its importance in the construction trade.
460000-0208 Recognize and use metric units of length, weight, volume, and temperature.

STANDARD **The student will recognize and demonstrate the hand tools.**
460000-03

OBJECTIVES

- 460000-0301 Recognize basic hand tools used in the construction trade.
460000-0302 Safely use these basic hand tools.
460000-0303 Have an awareness of basic maintenance procedures on these hand tools.

STANDARD **The student will recognize and demonstrate power tools.**
460000-04

OBJECTIVES

- 460000-0401 Identify commonly used power tools of the construction trade.
460000-0402 Recognize safe use of power tools.
460000-0403 Explain the procedures to properly maintain these power tools.

STANDARD **The student will identify and demonstrate how to read blueprints.**
460000-05

OBJECTIVES

- 460000-0501 Identify and recognize basic blueprint terms and symbols.
460000-0502 Relate information on prints to real parts and locations.

STANDARD **The student will explain and demonstrate basic rigging techniques.**
460000-06

OBJECTIVES

460000-0601 Explain and practice rigging safety.
460000-0602 Identify and explain rigging equipment.
460000-0603 Inspect rigging equipment.
460000-0604 Identify, explain, and perform crane hand signals.
460000-0605 Estimate size, weight, and center of gravity.
460000-0606 Tie knots.
460000-0607 Identify and explain types of derricks.
460000-0608 Identify and explain types of cranes.
460000-0609 Rig and move materials and equipment.

PROFESSIONAL DEVELOPMENT

STANDARD **The student will understand the need for professional**
460000-07 **development.**

OBJECTIVES

460000-0701 Complete a personal inventory.
460000-0702 Set and meet goals.
460000-0703 Be self-motivated.
460000-0704 Know how to make decisions.
460000-0705 Know how to manage time.
460000-0706 Organize personal belongings and lab equipment.
460000-0707 Learn to communicate verbally.
460000-0708 Write effective communications.
460000-0709 Establish a personal reading program.
460000-0710 Develop effective work skills and attitudes.
460000-0711* Master a working knowledge of SkillsUSA.
 ▪ State the SkillsUSA motto.
 ▪ State the SkillsUSA creed.
 ▪ Learn the SkillsUSA colors.
 ▪ Describe the official SkillsUSA dress.
 ▪ Describe the procedure for becoming a SkillsUSA officer.

STANDARD **The student will understand the need for leadership skills.**
460000-08

OBJECTIVES

460000-0801 Serve on a committee.
460000-0802 Prepare an agenda.
460000-0803 Assist in planning a meeting.
460000-0804 Review basic parliamentary procedure.
 ▪ Make a main motion.
460000-0805 Participate in a school project.

- 460000-0806 Attend a community meeting.
- 460000-0807 Practice effective speaking.
- 460000-0808 Present a three- to five-minute talk.
- 460000-0809 Implement a leadership project.
- 460000-0810* Master a working knowledge of SkillsUSA.
 - Describe the meaning of the SkillsUSA emblem.
 - State the SkillsUSA pledge.
 - Describe the duties of a SkillsUSA officer.

STANDARD The student will understand the need for career planning.
460000-09

OBJECTIVES

- 460000-0901 Define your future occupation.
- 460000-0902 Survey employment opportunities.
- 460000-0903 Report on a trade journal article.
- 460000-0904 Explore opportunities for advanced training.
- 460000-0905 Conduct a worker interview.
- 460000-0906 Contact a professional association.
- 460000-0907 Explore entrepreneurship opportunities.
- 460000-0908 Give a talk about your career.
- 460000-0909 Review career goals.

* SkillsUSA PDP requirements - optional but recommended